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47 South 1st

Paper March 3^d 1828

An

Inaugural Essay

on

The state of the biliary secretion in fever,

For the degree of Doctor of Medicine

In the University of Pennsylvania

By

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Philadelphia

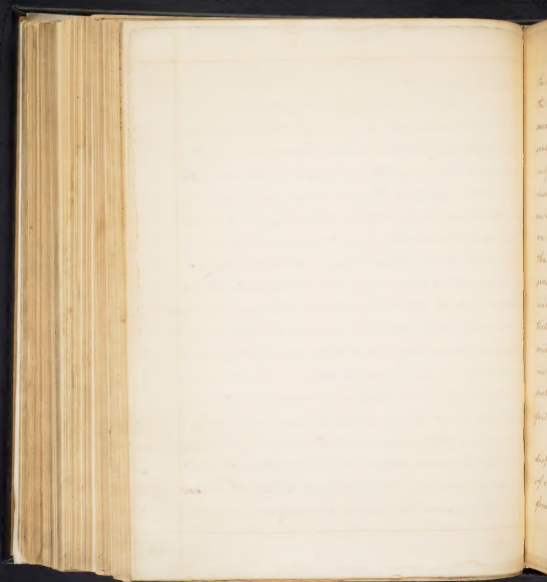
January 1st

1828.



An Essay &c.

The arguments advanced in the following essay are founded on an opinion opposed to the general belief, that the fevers of the Southern country are bilious in their character. In proving the position, the author will be obliged to contend with popular prejudice rather than Medical authority properly so called; for it may be remarked, that it is the mass of common people who believe the doctrine & not the scientific Physicians who promulgate it. Many professional men, no doubt, have fallen into the prevailing opinion that overplus or depravity of bile, exercises much influence in our fevers; but something has hitherto prevented them from accounting for, or proving it. In essays on fevers, the subject is occasionally introduced; but if we may judge from appearances, it has only seemed to claim attention in consequence of the universal belief in its powerful agency & not from any conviction in the minds of the authors that this agency was correctly imputed to it. It is not pretended that the arguments here brought forward, are altogether



the result of observation; but they will not be condemned by the enlightened reader because people have not always been received through the medium of the external senses. Our senses are known to be imperfect. In the investigation of subjects that require their minute employment & accurate discrimination in ^{as} great a degree as Physiology & Pathology we arrive at a point where they totally fail us. Then we draw on the resources of our reasoning powers, for well we know that many things are demonstrable to reason that are not to sense. Reference to a principle in Natural Philosophy will prove this. In endeavouring to detect the ultimate particles of matter by the aid of the microscope, they become so minute as to be confounded with the surface on which they are placed. At this point the power of the organ of vision assisted by the art of many steps; but reason goes many steps farther & tells us, that matter is infinitely divisible.

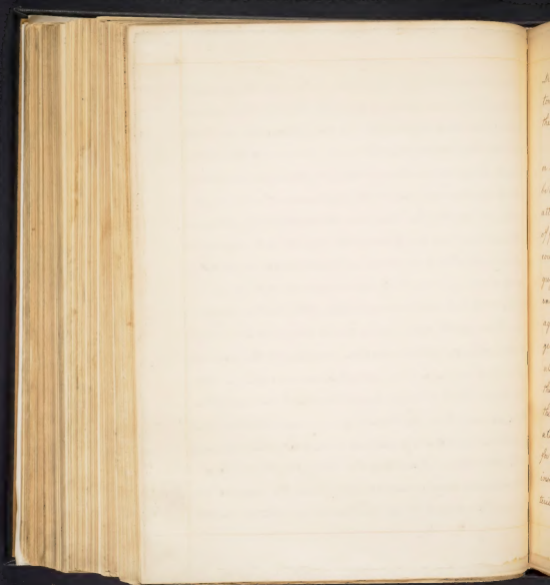
Thitherto, whenever the agency of bile in fever has been disputed, the author of such an opinion has been accused of confounding cause & effect. To free the present essay from such an imputation, three positions are assumed



as all equally true! 1st That super-abundance or depravity of bile, is not the cause of fever! 2nd That it is not the effect of fever! 3rd That it is not directly or indirectly the effect of any of the usual causes of fever! To prove first, that it is not the cause of fever, we should investigate the physiological effect of the usual quantity of healthy bile on the system & thence form an opinion of the probable pathological effect of an increased quantity or morbid quality of the same fluid! We are taught that it is the office of one portion of the bile, to assist in the separation of the chyle from the chymous mass brought into the duodenum, & that the office of another portion is, to stimulate the alimentary canal & cause it to move forward its contents. The latter is more a settled point in Physiology. It is proven that bile contains a purgative principle by the experiments of Professor Chapman on the bile of inferior animals, which he found actively cathartic. Negative evidence will also be found in the fact, that in those diseases where external symptoms indicate deficiency of biliary secretions, there is always



tapae of the intestines & obstinate constipation. This is exemplified in Jaundice, Dyspepsia &c. Having these known effects from healthy & deficient secretions, our most rational corollary would be, that super-abundant secretion would purge or produce Diarrhea. Acrimony or depravity of bile has been ascribed to the influence of solar heat, where, by the profuse perspiration which takes place, an abstraction & reabsorption of the more dilute element is occasioned. It is to be presumed that the bile subjected to such a process, must acquire a concentrated degree of power & that its irritant & corrosive effect on the mucous membrane of the primae viae would be greater. According to the intensity of the irritation, we should then expect a violent Diarrhea or a mild or a severe case of Dysentery. If bile in a state of overplus or depravity, be the cause of our fevers, we may hence legitimately conclude, that these fevers would be preceded by, ushered in or exist contemporaneously with, Diarrhea or Dysentery. But then, far from being common, are very unusual symptoms. The converse of this will be found partly true, namely - that Idiopathic



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function is not attended by pain as a necessary symptom. It is not therefore probable that the same increased bloodness is ever caused by stimulation of the eye.

The second question a farmer is, that one who is a sufferer of him is not the object of forced to rest or transacting the records of the usual eye very so, to attend on education of the eye, as in the common eye of him in the ordinary course, & there is no symptom which would be considered a positive indication of their aggregate, the mayhemore in one of the most common, viz. unusual the eye, followed by action as seen, this aspect is not, that in the first mentioned state there is general diminution of secretion, but it is supposed that when reaction has been excited and take place the secretion in part will return to the execution of their proper functions in most of the quadrilateral apparatus. But in some cases it may be an exception to this rule, in it derives the materials of its secretion from its veins instead of its arteries. By the augmented action of the arteries, those veins become engaged with blood & this part



is here demonstrated by the more or less strenuous regard
 made to the various characters of the veins, by reference
 to the minute interstitial structure, and finally to the
 hepatic arterial system with the venous system of the
 various organs, and in some cases to the cellular
 structure of the latter is entered upon. It must be confessed that
 although we are now prepared to discern this method of detection
 & delineation, the same observation can be made upon ground
 now in history is needed.

But, to return to the practical part of our lesson
 & this subject may be taken up by the third, & then a minute
 & in other words, to trace the common causes of disease in
 the system, as the various organs, & so on, & so on, & so on,
 can be so much and in these attributions to the system, as
 in the production of the disease, or in the production of the
 disease, in a great measure, in the fact that it is not
 now now to say some separate consideration of the organs,
 & in the case of the various to their molecular structure, we will
 retain that some stage of our knowledge, some account of the
 most prominent symptoms. Among the prominent causes



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of this there is no more to be said in the
state of disease. But a small quantity of the
materia is not the cause of the disease, for
secretion is its habitual state, therefore it is not
an indication of the disease.

It is observed by persons that the mark
minimalis enters the system. It is near the chest, near
the lungs, demonstrated that it is not a local disease
of the stomach, for it is not a local disease
entering the system, and the lungs are the source
of it. The materia is not a local disease, would be
of course. The principle is not in the system, for
it can be removed from the system, for the removal of
the materia is not a local disease, for it is not a
local disease. Can they be removed from the
system? Can they be removed from the system?
Can they be removed from the system? Can they be
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Can they be removed from the system? Can they be
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the system? Can they be removed from the system?



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to the two said lower articles that it is less developed
 on the south side of a duct, which is connected to the
 from which that duct proceeds we have a solution.
 But it remains yet to be proved whether the action pro-
 duced by miasma is really a stimulus to the part
 that is diseased by the action of miasma
 is a solution. But the effect is a stimulus to the
 way to the solution of some hereditary element of the
 the mechanism in respect to the action of the
 of the miasma is a stimulus to the production of

It may not be enough to make a real de-
 gression inasmuch as it is presumed that the action of
 miasma on the nervous system, the nervous system
 tends to determine them of their action to an extent
 of discrimination the materials for secretion in the
 vascular pers. Was these materials are obliged conse-
 quently to remain in the circulation, & thus
 know from analysis that the constituents of
 life are such as are very unfavorable to health, may
 not their detention in the veno-polarium be the cause



of some of the anomalous phenomena of tone not yet accounted for & the presence of bile in the blood, our own denied, but its elements may certainly exist & not be requisite to the serum when we presume that we have made the most impartial experiments. The conception of such an idea does not insinuate a belief in the doctrine of the humoral pathology. There is no primary disease of the fluids, alluded to, but only a disordered condition of these fluids, which is the sequel of a morbid action first described on the solids. The following quotation from the writings of Dr. Jarrison will support the supposition. "It is not necessary, that in prelucler diseases, alluded to in the introduction & secretion & excretion, digestion & healthy nutrition, the quantity of these food may become depraved to a certain extent, so as to become incapable of a healthy interaction to sustain life."

It is the creed of Prof. Chapman that miasmata as a cause of disease, become entangled in the portal circulation & thus enter the stomach. It would cure



into the circulation of disease whether the poisons
in question were made in the stomach or in the various
anatomical divisions, & the intestines; the microscopist
who takes the whole is exposed to the effect of the
latter, & must therefore to elude the influence of the
mortal agent, but it has been shown that immixtion
on this topic cannot result in any disease.

Some experiments have been made to prove that
poisons are taken into the system by secondary &
cuticular absorption. The authors of the most extensive
of these experiments tell us, that their experiments of the
kind are of the deleterious matter in the system, was
absorbed in the skin, & the circulation, hence
these circumstances, allowing this theory to be correct,
it must have retarded the circulation directly, & the
microscopist, & it has been shown that
we could not rationally expect in any condition
of the system, & general conclusion may
then be drawn from what has been proved & generally
that much effluvia is a cause of disease, & must





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[illegible]



[illegible]



to the continued action of the cutaneous defunctions & hepatic excretions? Regulation from the phrenetic function may under the same function be assumed, more tenable. That which exhausts the cutaneous system, increases its action at the expense of that of the glands & vice versa; could we then contract it, & force the glandular system to supply this action."

But a very prominent objection drawn from every day observation may be urged against Dr Johnson's theory. It is an inveterate law of our economy that more than an increase of food or the increase of perspiration, which is that we are in the habit of regarding as the most powerful stimulus, does not increase the length of our life, but tends to decrease it. The absence of food, however, in these cases, we are told by Dr Johnson that nature substitutes a more salutary, in the more moderate, by which it is enabled to provide up muscles & the intestines may consequently substitute of their natural intensity, do not so readily yield to the purgative influence of the bile but do not yield to the purgative, viz. they not, a man









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[illegible]



luses without that afflicting & permanent derangement of the digestive function, so often consequent on the exhibition of large & powerful doses of medicines. That this derangement is often the sequel of a mercurial treatment, we are easily persuaded to believe, when we reflect on the cruel & unnecessary waste of the gastric, pancreatic & biliary fluids which it occasions, the high grade of excitement to which the organs which ~~should~~ respectively furnish those fluids, are stimulated, & the necessarily subsequent debility & collapse to which they are subjected. This practice especially demands reform in Carolina & Georgia, where calomel is the *fac totum* in fever.

The foregoing remarks have been offered because it has occurred to the author that the subject, though much hackneyed, was important. If the doctrine shall be proved incorrect, no harm is done, but the lax on which the present wide spread belief rests, shall be sensibly widened, & the superstructure of course, crumble.

24. 1. 1834 Dr Chapman

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Paris March 5th 1820

